

31 March 1980

MEMORANDUM FOR: Deputy Director for Administration

STATINTL FROM: [REDACTED]
Director of Medical Services

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STATINTL SUBJECT: IG Report on PATB - Letter from [REDACTED]
[REDACTED]

STATINTL 1. The attached letter from [REDACTED] was prepared by him after his consultation here and was mailed to [REDACTED] Chief of the Psychological Services Staff. [REDACTED] offered to write this letter after reviewing the IG Draft Report and the IG Consultants' Report. The letter was not solicited in any way.

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2. I have reviewed this letter carefully and consider that it speaks for itself. I view it as an important adjunct to the more extensive rebuttal to the IG Draft Report on PATB. I also request that it be forwarded to the Inspector General and to the DCI and DDCI as a part of OMS response to the IG Report and IG Consultants' Report on PATB.

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Attachment
(4 copies)

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[REDACTED]

March 24, 1980

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[REDACTED]

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This letter is a follow-up to my visit where you asked me to review the I.G. reports prepared by [REDACTED] and [REDACTED] two outside consultants.

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I have organized this letter into four parts:

I. Their criticisms of the Strong-Campbell Interest Inventory.

I think they are off the mark here. They seem not to have stayed current with new developments.

II. Their evaluation of the Professional Applicant Test Battery (PATB), and its use.

Their concerns are more those of isolated academicians, who can be critical and then go home, rather than of involved professionals who have to make a selection system work in the world of reality.

III. Some specific comments on the overall report.

I think they were superficial and sloppy, also hostile.

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[REDACTED]

IV. A suggestion for future improvement in the Agency's selection policies.

I have suggested what I think might be done next.

I hope this letter and report is helpful.

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Sincerely,



DC/ac

I. Their criticism of the Strong-Campbell Interest Inventory (SCII).

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[REDACTED] my reaction faces the charge of being defensive. I don't know anyway around that other than being straightforward about it, citing some contrary evidence, and invoking the judgments of others that have appeared from published reviews.

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[REDACTED] are critical of the SCII in several places in their report. For example:

"No validity studies have been done on the SCII. It appears as though the psychologists [PSS staff] have assumed that the validity data accumulated for the old Strong Vocational Interest Blank, which is, by the way, completely inadequate and unconvincing, can be applied to the SCII. It cannot be: the SCII is a new instrument with quite different characteristics from the old Strong Vocational Interest Blank."

Appendix 1, p. 38-39

This is an example of the gratuitous remarks that so often weaken their report. First, to accuse a professional staff of being confused about a major revision of a test in their battery is a serious charge of incompetence, one that could quite easily have been shown not to be true by asking a few simple questions of the staff. Why didn't they ask them?

Second, to dismiss out of hand the accumulated mass of evidence on the Strong Vocational Interest Blank by the throw-away comment..."which is, by the way, completely inadequate and unconvincing" is a real zinger.

That the investigators themselves may not be of a single mind here is indicated by a second quote on the SCII, appearing later:

"The SCII is a standardized instrument which provides validity data in its manual to establish what it is appraising."

Appendix 2, p. 9

This kind of inconsistency is usually found in reports produced by two investigators who do not consult with each other, or read what the other has written. It is sloppy and unprofessional.

The SVIB is the most thoroughly documented non-cognitive test in existence. Two massive Handbooks are available (Strong, 1943; Campbell, 1971), an 18 year followup study (Strong, 1955), books by others on the inventory (Darley, 1941, Darley and Hagenah, 1955), a string of Technical Manuals (Strong 1959, Campbell 1966, 1968, 1974, 1977) and 1,521 technical publications cited in the Buros Mental Measurement Yearbook Series.

Of course, not all of the publications are positive and supportive. Some are critical, and one of the characteristics of the SVIB-SCII system is that we have constantly tried to improve it, using as part of our guidance the useful criticism of our professional colleagues. Since I have been in charge, the inventory has been revised three times: in 1966, 1969, 1974, with another revision coming in 1981. Consequently, as Thorndike and Hagen point out, the current version of the inventory is not the same as the older version; in the new editions, we tried hard, successfully I think, to retain the beneficial aspects of the earlier forms while incorporating improvements suggested by ongoing research. Consequently, the SCII is superior to its predecessors in at least the following ways:

1. It is shorter, by virtue of eliminating invalid or outdated items, and those items possibly offensive to various groups. Its reading level has been lowered. The instructions and items have been polished.
2. It combines the earlier separate forms for men and women into a single booklet that can be used by both sexes.
3. It has a theoretical orientation, allowing for generalizability of results; the earlier versions were completely mechanistic, atheoretical instruments that forced the user into being his/her own theoretician.

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4. It has many more scales for both men and women; these scales have virtually the same psychometric qualities as those on the earlier form. Many are better.
5. It now has two basic kinds of scales, reflecting the two most common scale construction techniques--internal consistency and criterion-related--so that the user can take advantage of the benefits of each.
6. The graphic representation of the scores is more sophisticated, and a long computer-produced narrative report is now available.
7. The versatility of the computer has been used to markedly reduce scoring inaccuracies.
8. The interpretive information provided to the user has been increased at least tenfold. The Manual has increased in size by a factor of three or four. Far more information, both interpretive and cautionary, is available than ever before.

The accumulated mass of evidence on this inventory shows clearly that:

1. People who enter different occupations have different interests.
2. These interests can be tapped by quantifiable methods, and then described on dimensions ranging from "high to low."
3. Individuals with "high" interests in some vocational area are more likely to enter that area, and remain there happily employed than are those with lower interests.
4. When good measures of specific occupational performance are available, and they hardly ever are, some interest patterns show positive correlations with performance; others do not.

5. People with "low" measured interests in some occupational area are less likely to enter that area. If they do enter, they are more likely to leave, or express occupational dissatisfaction, or perform the occupation in some unusual manner than are people who score "high."
6. Interest test scores are stable, especially for adults and especially over short time spans (of 2-3 years). Even among teenagers tested over 20-40 years lately, the average degree of stability is startling.

I could list another 20-30 findings, but these general ones serve the purpose. To dismiss this accumulation of 50 years of research as, ..."by the way, completely inadequate and unconvincing..." is the mark of an investigator who is concerned with some issue other than a thoughtful, professional review of the Agency's test battery.

Should any reader wish to pursue this, the SVIB-SCII has been thoroughly and repeatedly reviewed in the prestigious Mental Measurements Yearbook Series, with the latest reviews appearing in 1979. Here are some direct quotes from those reviews, as well as some from other sources.

"The latest (1959) manual for the SVIB is well organized and provides detailed information on the rationale, construction, reliability, and validity of the SVIB, as well as an informative section on use and interpretation of the test in counseling and personnel work. Recent major research studies...which are summarized only briefly in the Manual, now make it clear that the SVIB is useful for predicting membership in given occupations over long periods of time, and of moderate value for predicting success within a few selected occupations...In comparison with competing tests, the major liability of the SVIB would seem to be the complex problem of interpreting a profile based on such a large number of scales, although the extensive work which has recently been done with group keys has alleviated much of this difficulty. In any case, there is still little doubt that the SVIB remains as the best constructed and most thoroughly validated instrument of its kind." p. 1304

Alexander W. Astin
Director of Research
American Council on Education, in
The Sixth Mental Measurements
Yearbook, 1965,

"During the 10 year period since the previous review, the vitality of this inventory has continued undiminished. Important publications include Strong's Vocational Interests 18 Years After College (1955), Darley and Hagenah's Vocational Interest Measurement (1955) and a new manual. To these should be added such further interpretive aids as Layton's monograph (1955), substantial treatments in testing books, such as that by Super and Crites, and upwards of a hundred research studies in periodicals and dissertations...All in all, the Strong remains a solidly based but rather complex inventory suitable mainly for older adolescents and adults considering higher level occupations..." p. 1304-5

Edward J. Furst
Prof. of Psychology
Ohio State University, in
The Sixth Mental Measurements
Yearbook, 1965

"Strong published his inventory in 1928, offering as evidence of validity the fact that the scores distinguished middle-aged men of different occupations from each other... After publication of the test, Strong continued to accumulate evidence by following men for 20 years or more and by 1954 was able to verify that the test indeed makes fairly valid predictions over a long period." p. 137

Lee J. Cronbach
Prof. of Educational Psychology
Stanford University, in
Essentials of Psychological
Testing, 3rd Ed.
Harper & Roe, 1970

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"The (1969) revision has been handled with the circumspection that befits a highly respected institution. In a time when all established institutions are buffeted by winds of change, Campbell has apparently sought a middle course between orthodoxy and radicalism. He seems to be trying to preserve the structure of the instrument that Strong built, so that the hierophants can continue their comfortable reliance on accumulated data, personal experience and familiar ritual. At the same time, he has modernized and streamlined the instrument, has made it more adaptable, and has laid a foundation for more extensive innovations in the future...Until the scheduled Handbook for the SVIB [now published, 1971... David Campbell] or future handbooks enlighten counselors on the advantages of the SVIB over expressed interests, this reviewer is reluctant to recommend the use of the SVIB--or any other interest inventory." p. 1464

Martin R. Katz
Senior Research Psychologist
Educational Testing Service, in
The Seventh Mental Measurement
Yearbook, 1972

"This is a paper-and-pencil inventory of interests applicable to late adolescents and young adults...With the mass of information available, users and interpreters of the test should have some training in psychological testing and spend some time with the manuals and the Handbook. The Handbook appears to be the most complete document of its kind ever assembled...Both the original author, E.K. Strong, and the current authors, especially D. P. Campbell, have shown themselves willing to tackle the complex and frustrating task of providing as complete as possible information for their test. They have succeeded better than most. The authors are aware of the criticisms of their efforts and are to be complimented on their efforts to correct deficiencies where they agree and to make the rest of us understand where they do not agree."

Charles J. Krauskopf
Professor of Psychology
University of Missouri, in
The Seventh Mental Measurement
Yearbook, 1972

"Over a period of 40 years, the SVIB has been revised and refined extensively, and it is among the most useful and successful structured inventories available today... The most recent revision of the men's form of the SVIB contains carefully validated and up-to-date scales for 54 specific occupational groups. The Handbook for the Strong Vocational Interest Blank summarizes results from over 100,000 adults in over 400 occupations, some of which were tested four times over 40 years. Given the success of the SVIB in the realm of vocational interest measurement, it is understandable that the empirical method of contrasted groups has also been attempted in the realm of personality measurement as well."

p. 388-389

Jerry Wiggins
Professor of Psychology
University of Illinois, in
Personality and Prediction: Principles
of Personality Assessment
Addison-Wesley, 1973

"Although all of the interest inventories that use normative or occupational scales--the several versions of the Strong Vocational Interest Blank (SVIB), the Minnesota Vocational Interest Inventory (MVII), and the KOIS--have extensive data in their manuals on their ability to distinguish between persons in different occupations (a form of concurrent validity), really only the SVIB has had extensive investigation of its predictive validity. The best known is Strong's 18-year follow-up (Strong, 1955), but a number of other studies have been performed and are reported in convenient form by Campbell (1971). Strong concludes that persons are three times as likely to be in an occupation on which they made a T score of 45 or higher than in an occupation on which they scored lower than 25. Campbell concurs in his review of other follow-up studies, although he suggests that when the inventory is taken by high school boys, it is used more effectually to suggest general direction of career rather than specific occupation. Berdie (1960) and Super and Crites (1962) review much of the same material and draw similar conclusions."

Donald Zytowski
Journal of Counseling Psychology, 1976
Vol. 23, No. 3, p. 221

"Information about these inventories is now voluminous and scattered throughout the literature. Campbell's (1971) Handbook for the Strong Vocational Interest Blank (SVIB) is the largest and most comprehensive summary of the evidence about any single inventory. This companion volume to Strong's (1943) Vocational Interest of Men and Women provides an extensive account of the history of the development of the SVIB, including the most recent developments--the development of the basic scales for men and women, administrative indices for detecting errors and response bias, new occupational scales for specific occupations, and new and old data about the retest reliability and validity of both the old and new scales. In addition, the appendices provide 180 pages of empirical detail. Even a casual reader would conclude that the SVIB must be the most well validated inventory in existence."

John L. Holland
Handbook of Industrial and
Organizational Psychology, 1976
Chapter 12, p. 523

"Recognized as the paragon of applied behavioral measures and widely acclaimed as the bellwether of career counseling and personnel selection, the several editions of the Strong Vocational Interest Blank have a venerable history and reputation, dating back to the late 1920s and spanning the subsequent decades to its most recent revision in 1974. Literally thousands of studies have been conducted on the SVIB, and millions of copies have been sold. It has launched and sustained careers, as well as assessing them, and it has served as a source of master's theses and doctoral dissertations. It seems almost presumptuous, therefore, to review the Strong, but such is the conscience of the testing community. Even the Strong must bear the scrutiny of critical analysis, although it may be difficult to find other than picayune flaws in it. Particularly is this true of the current edition, the Strong-Campbell Interest Inventory, which represents the culmination of almost 50 years of unparalleled 'dustbowl empiricism' on the measurement of vocational interests."

John O. Crites
Professor of Psychology
University of Maryland, in
The Eighth Mental Measurements
Yearbook, 1976
Volume II, p. 1621

"The new SCII is well constructed. The reliability and validity figures reported for the new SCII scales are comparable to those reported for the SVIB scales."

"Campbell and his co-workers not only have merged effectively the male and female forms, but also have improved substantially the interest inventory by eliminating undesirable items from the item pool, by adding a large number of new Occupational Scales, and by providing a theoretical structure for the empirical scales."

Richard W. Johnson
Measurement & Evaluation in
Guidance Journal, 1976
9(I):40-5

"The SCII appears to the reviewer to be the best vocational interest inventory available."

Robert H. Dolliver
Professor of Psychology and
Counseling Psychologist
University of Missouri, in
The Eighth Mental Measurements
Yearbook, 1978
Volume II, p.1626

"The convergent and divergent construct validity of the Strong-Campbell Interest Inventory and the Vocational Interest Inventory,...was examined separately in samples of male and female college counselees. The validity of the SCII General Themes was strongly supported while minor weaknesses in certain Basic Interest and Occupational scales were revealed."

(abstract)

"Construct Validity of the Strong-
Campbell Interest Inventory..."
Journal of Vocational Behavior, 10, 1977
pp.187-195

Patricia W. Lunneborg
Professor of Psychology
University of Washington

From their criticism, [REDACTED] seem to be out-of-step with the rest of the profession.

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II. The investigator's description of the use of the Professional Applicant Test Battery (PATB).

Before I read the I.G. report, I spent several hours looking through applicant files, reading the staff summaries. They seemed appropriately done; if anything, restrained. The summaries were cautious, staying close to the data.

I thought to myself, "This is the kind of timid behavior created by bureaucracies; because they may be called on to defend these summaries, the psychologists are offering little more than an explicit description of the test scores--no additional hunches, educated guesses, or clinical wisdom that could help the employing manager go beyond these scores."

Consequently, I was surprised to read [REDACTED] characterizations of the PATB summaries:

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"The [PATB] narrative report is partly description, partly prediction, and partly fantasy."

Appendix 1, p.4

"...we have been extremely troubled by the unrestrained enthusiasm with which the psychological staff has promoted the operational use of the PATB test scores for selection and placement of personnel in the agency."

Appendix 1, p.37

"The failure of PSS to recommend an applicant is equivalent to a "kiss-of-death" for that applicant in some of the units. This makes the recommendation section of the narrative report even more troublesome because PSS makes its recommendations with a level of confidence and finality that is not supported by the validity and reliability of the data."

Appendix 2, p.7

These accusations of "partly fantasy," "unrestrained enthusiasm," and "kiss-of-death" are difficult charges for the psychological staff to defend themselves against; if they offer up contrary examples of their work, the cases can easily be dismissed as biased selection. If they simply say, "No, that's not true," they come across as defensive. There is really no way they can answer, unless the reader of the report has the opportunity to look through some of the applicant folders.

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I had that opportunity, and after reading [REDACTED]'s report, which seemed so at odds with my own perception, I went back and simply grabbed a handful of folders and have quoted the summary statement from several of them below. While these don't constitute a perfectly random sample, the choice was haphazard. Clearly, these reports constitute something other than "unrestrained enthusiasm," or "fantasy." (Some of these summaries are from case folders of agency employees who came in to be tested for career development purposes; others are from applicant files.)

Case #1

"Candidate's non-verbal abilities are suitable for Agency employment, but his verbal skills are evidently weak, by Agency standards. His work attitudes are positive, and he claims some relevant career experience. OL may have an interest."

Case #2

"Candidate's scores range from poor to above average. OIA may have an interest."

Case #3

"Candidate's test abilities range from poor to average, and are, overall, weak, when compared with those of most Agency personnel. However, in view of his education, and obvious interest in mechanical activities, NPIC may want to consider him for a technical position."

Case #4

"Candidate appears to be a bright young lady (average by Agency professional standards) who has some potential for development along professional or at least semi-professional lines. She has indicated that she would eventually like to make use of her undergraduate training in biology and chemistry in some way, does well with mathematical problems, and enjoys physical activity. In addition to perhaps receiving training as an investigator, are there any technical or scientific assignments in which she might be given an opportunity to gain some knowledge and make a contribution?"

Case #5

"On the basis of these few test scores, the candidate would appear to be rather less qualified for Agency employment than other applicants, particularly in the realm of verbal abilities."

Case #6

"Candidate's most obvious weaknesses are in the verbal and writing skills areas, which he may wish to address through some Agency in-house training aimed at strengthening such skills. His measured interests bear little relationship to Agency positions and are therefore of limited value in determining beneficial career assignments. A determination of his ability to handle a professional assignment would depend upon the assignment he would have, the demands made upon him, his level of interest, and past work assessment. Compared with other Agency employees with his level of education, candidate's abilities are generally average to slightly below average."

Case #7

"This is a highly confident, calm, collected, and self-assured type person who perceives himself to be very much the leader in any group. In terms of work he is very willing to function under conditions that require stringent, security measures and involve a constant change of pace and schedule...

It is not clear what may be contemplated [in terms of OS, for this applicant]. If it is the position of investigator (and [applicant] agrees), the work attitude/temperament indices as well as the high score areas of the PATB would tend to support consideration; i.e., he has certainly the intellectual ability needed and the other indices suggest good stress tolerance and interpersonal skills."

Case #8

"Candidate's measured interests have a technical-realistic direction: candidate shares the interests of foresters, veterinarians, police and highway patrol officers, registered nurses, medical technicians, and pharmacists.

Candidate appears to have potential for development along professional lines in the OS...Candidate indicates wish to pursue a graduate level academic program, but hopes to continue working while he does so."

From test feedback interview:

"Candidate was especially interested in his interest patterns, which reflected quasi-medical interests but supported earlier decision to drop his pre-med studies to take up anthropology...

I encouraged him to seek more information in the Agency in [a special interest area] and suggested [a career planning] book."

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Case #9

"Candidate's tested abilities range from poor to excellent, and most fall into [the Agency's] average range. His work attitudes and work interest patterns reflect his occupational choices consistently. He seems well-suited for a job in which he can use his technical interests and skills. OWI may have an interest."

Those summaries hardly merit the severe criticism leveled at them by [REDACTED]. My own judgement is that the summaries are reasonably well-done, given the number of applicants, and limitations of the staff. The routine nature of the reports strongly suggest that much of this work could be computerized.

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III. Some further, specific reactions.

Job Analysis

The approach they recommend--that of atomistically analyzing each job, then developing and validating a test (or an equation) against each job element for a range of various demographic categories--white, black, Hispanic, male, female--and then using the tests as selection devices is simply too overwhelming and burdensome for most organizations to use, especially if they have large numbers of jobs with only a few people each in them, or if they have jobs that continually change in character.

The permutations involved in validating tests for 5 or 6 demographic categories for even as few as 8 or 10 jobs quickly become overwhelming, even if the various test population are available, which they are not.

Textbook academicians who have been recommending these systems for years by now should know better; the systems simply haven't worked. The incisive proof of that is the pudding that the academicians themselves have not eaten; no university that I know of uses these methods to select their own students, staff, or faculty.

Reliability

Most of their long discussion on the topic of reliability is elementary, more suitable for an entry level course in statistics than for a real world report. It is a red herring thrown into a report that seems to have trouble focusing on the real issues.

- In the first place, the tests in use have suitable reliabilities.
- In the second place, even if they were not reliable, the selection ratio is so high (those who apply vs those who are hired) that some error in the measures would not hurt much anyway. With this selection ratio, the cutoff point can be far above any wobble created by unreliability.
- In the third place, because of what we know about scale length, item intercorrelations, and reliability, virtually any sensible psychologist can now create a reliable scale. Six to eight Likert-type items, with a reasonable homogeneous core of content, will produce a reliable scale. Once you give up inkblots, or TAT's, or Draw-A-Person tests, reliability is hardly ever an issue. It certainly isn't here.

"Got-chas"

The tenor of the I.G. report is quite critical, and one of the themes running through the report is the authors' proclivity to use catchy, belittling lines of criticism that are difficult to defend against:

"The narrative report is partly description, partly prediction, and partly fantasy."

"kiss-of-death"

"unrestrained enthusiasm"

"[The Policy] has disappeared into the mists of antiquity."

These little "got-chas" make good reading for the outsider and create in the authors a momentary sense of headiness for their devilish cleverness, but they create an unfair dilemma for the professional who is thus accused. How does one defend oneself against an unspecified charge of "partly fantasy?" Without knowing on which cases the charges were based, the professional can only answer "it is not fantasy!" which is hardly convincing.

Further, the tone of the report is basically nasty and hostile; for example, it automatically assumes that the PATB is anti-female and anti-minority.

Experienced outside consultants would be aware that the professional staff is going to have to answer each criticism, and would couch the criticism in specific, non-emotional terms, perhaps even with a suggestion for improvement, instead of flinging these generalized grenades.

Level of Sophistication

In general, the report is written below the level of sophistication of the professional staff. The discussions of job analysis and reliability, above, are instances of that.

Another instance is their comment: "The selectivity may well have worked to the advantage of the Agency, but it tends to be disastrous for validation research." (Appendix 1, p.12.) To suggest that the ends of the researchers are more important than the overall operational needs of the Agency is a naive comment.

Assessment Center Methodology

The investigators give no nod at all to the important developments in the assessment center mode of assessment, which attempts to assess "the whole person" rather than tie the selection decision to one or two specific test scores. In the current situation, where the Agency is trying to select people for careers rather than for specific jobs, this global approach makes more sense. Instead, the I.G. report, with its emphasis on job analysis, molecular job components, and selection formulas argues for regression not progression, on this point.

Summary

The flavor of this report comes across as having been written by someone:

- (1) who was active in 1940-1950's testing psychology,
but who has not kept up on new developments,
such as assessment centers and test revisions,
- (2) who has had little practical experience in
actually installing and operating selection
systems in current organizations--the report
essentially recommends a 1940/50 academic
solution to the selection dilemma, a solution
which, despite 30-40 years of recommendations
in the textbooks, has never really worked any-
where that I am aware of,
- (3) who have mainly had a graduate student audience
who were unempowered to answer back to either
unfairness or nonsense--thus the report is
peppered with snide, little digs that the authors
would have trouble defending to knowledgeable
professionals who disagree with them,
- (4) who has an EEOC axe to grind--that axe may well
be worth grinding, but that cause is not well-
served by the quality of this report.

IV. A suggestion for an overall Selection Policy.

My main criticism of the Agency's selection procedures is the apparent absence of any overall guiding policy for the selection of new professionals, a point that [REDACTED] also made. The Agency's "Selection Policy," such as it is now, flows from a combination of the myriad decisions made:

- by managers asking for certain types of
individuals,
- by recruiters in their efforts,

- by investigators doing background checks,
- by psychologists in their testing roles,
- by various administrative constraints, such as affirmative action concerns, and probably adversely,
- by the system that frequently forces a lengthy delay between time of initial interview and final job offer.

The net result is that the selection policy makes itself through the interaction of these forces.

(A caveat here: the Agency, by its nature, is not an open institution; consequently an outsider gropes blindly for solid data about what is happening. The preceding paragraph is based mostly on small wispy clues, hunches, and educated guesses, not on hard data. The reader should be cautious; I may be wrong.)

An explicit, comprehensive policy for the selection of the Agency's new professionals would be a great help in deciding precisely what selection techniques should be used.

The policy should come from on high; the implementation should be the responsibility of the Psychological Services Staff.

My suggestion would be that at least the following points be addressed in an overall policy.

- I. TALENT: The Agency wishes to hire the best talent(s) available for its mission. Because a range of talents is necessary, multiple, overlapping categories should be considered. Here are the most likely categories: (again, from the viewpoint of a relatively naive outsider)

- A. Analytical

1. A general facility with words and numbers.
2. The ability to see themes in murky material.

3. The ability to conduct numerical analyses.
4. The ability to analyze and summarize written material.
5. The ability to forecast future trends from current material.

B. Technical Training

1. A solid background in some area relevant to the Agency's mission; perhaps
 - (a) mathematics/computer sciences
 - (b) physical sciences
 - (c) economics
 - (d) political science
 - (e) agriculture

C. Communications Skills

1. The ability to write clearly and crisply.
2. The ability to report orally, both one-on-one, and as a briefing officer.
3. Persuasive ability as necessary.

D. Language Skills.

II. STABILITY: The superficial image of the Agency is one of a James Bond world of intrigue, danger, excitement, sex and money. Consequently, the applicant pool has a disproportionate number of shallow, unstable, occasionally even psychotic, thrill-seekers. The selection procedures should weed them out. But balanced against this is the hard fact that the Agency needs to attract people who are willing to live unusual, atypical lives; for them part of the motivation is surely the "sense of differentness" involved. Consequently, policy here has to walk the fine line between the following two orientations (they are not necessarily either/or):

1. Personal soundness:

- (a) Strength of convictions in the accepted mores of our culture (e.g., that elected officials are ultimately responsible).
- (b) Tolerance for stress and ambiguity.
- (c) A generally optimistic view of life.
- (d) The ability to grow, not to stagnate.
- (e) An absence of mental, legal, financial, or physical problems.

2. A certain venturesomeness

- (a) Willingness to seek and experience change.
- (b) Calmness in the face of hazards.
- (c) Flexibility in the area of personal comfort.
- (d) A generally positive orientation toward risk.

III. MANAGERIAL POTENTIAL: Presumably the Agency is hiring for careers, not entry level positions, and because managerial talent comes mainly from within, the leaders of the future are now being hired. Consequently, some thought should be given to the future in the selection process. At least the following factors may be involved.

1. A willingness to seek more responsibility.

Those who move up the administrative ladder are more willing, even eager, to accept additional responsibility and suffer the related consequences.

2. The ability to follow and learn from older models.

Following a "mentor" is one of the most common routes to top management. Those capable of selecting and being selected by people who are excellent teachers will more often be found in the higher reaches of management. (Psychologists currently know virtually nothing about how to select for this characteristic.)

3. An air of "competitiveness."

Good leaders are usually competitive, physically active, willing to risk losing for the sake of winning.

IV. ADMINISTRATIVE CONSTRAINTS: There are certain external constraints that affect hiring practices; they, of course, must be recognized. At the moment, for example, affirmative action policies must be part of the overall selection policies.

V. "FOREIGN" ORIENTATION: I don't really know what I am talking about here, but the point seems too important to ignore. Because of the nature of its charter, the Agency needs to be an internationally oriented institution. Consequently, other characteristics being equal, those applicants are most desirable who have:

1. Lived, worked, or traveled extensively overseas, or
2. Have spend years studying other cultures, or
3. Have been raised by an internationally oriented family, or by a family from another culture, or, most preferably,
4. Some combination of the above 3.

SUMMARY

I am aware of the arrogance exhibited here in proposing an Agency selection policy on the basis of a one-day visit. Still, the absence of such a policy seems to be at the heart of the current dilemma. With such a policy, the necessary implementation could be done, and, in theory at least, some evaluation research could be conducted. As it stands now, those responsible for doing the work are at the mercy of outside experts who, free from the constraints of suggesting something that might work within the Agency's desired policy, are free to take potshots at the current procedures without worrying about practical reality.